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09/911,673	07/24/2001	Taro Endo	01430/LH	3874

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EXAMINER

NGUYEN, KEVIN M

ART UNIT PAPER NUMBER

2629

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/911,673	ENDO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin M. Nguyen	2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6,7,9,11,13-21 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6, 7, 9, 11, 13-21 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

***Response to Arguments***

1. Applicant's arguments, see pages 9-14, filed 8/25/2006, with respect to the rejection(s) of claim(s) 6, 7, 9, 11, 13-21 and 26 under the statutory basis for the previous rejection have been fully considered and are not persuasive. The rejections of claims 6, 7, 9, 11, 13-21 and 26 are maintained.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet et al (US 6,845,277) hereinafter Michelet in view of Fukuda (US 6,295,002).

3. As to claim 6, Michelet teaches a display system [see Fig. 1] comprising:

- a host apparatus [10, 22] having an image input interface [20];
- a display apparatus [21] which is operated by supply of at least one of a video signal [a graphics channel] and power [at least one of a power supply 34 via bus 18 and bus 19] from said host apparatus [see col. 4, lines 16-18];
- a communication interface [buses 18 and 20] for communicating data between said host apparatus and said display apparatus [see col. 2, lines 40-46];

a storing section for storing on-screen display information [a display 21 provides on screen display function ...for displaying text and graphics on the video screen, col. 5, lines 47-55];

an information superimposing section [OSD decoder 54, Fig. 5] for superimposing said received on-screen display information of the video signal, wherein the host-side communication section [10, 22] transmits the video control [62, 63] having the on-screen display information superimposed thereon, the display-side communication section [52] receives the transmitted signal, and the display apparatus [60] displays an image of the on-screen display information [see col. 9, lines 10-18].

Accordingly, Michelet teaches all of the claimed limitation, except wherein said display apparatus comprises a storing section for storing power consumption data, a display-side communication-section for transmitting said stored power consumption data and said on-screen display information; wherein said host apparatus comprises: a host-side communication section for receiving said power consumption data transmitted from said display apparatus and said on-screen display information; a power control section for entirely performing power control of said display system based on said power consumption data received from said host-side communication section.

However, Fukuda teaches wherein said display apparatus [51] comprises

a storing section for storing power consumption data [RAM 62c],

a display-side communication-section [61] for transmitting said stored power consumption data and said on-screen display information;

wherein said host apparatus [3] comprises:

a host-side communication section [44] for receiving said power consumption data transmitted from said display apparatus and said on-screen display information;

a power control section [controller section 1] for entirely performing power control of said display system based on said power consumption data received from said host-side communication section [see col. 6, lines 6-14].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the battery-powered data (corresponding to the power consumption data) has been established bidirectional communication between the display section (5) and control section (1) as taught by Fukuda for the intended use of the display system of Michelet, because this would reduce the consumption electric power of the electronic devices, while allowing the communication system to operate for an extended period of time (see Fukuda, col. 13, lines 8-17).

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet in view of Fukuda as applied to claim 6 above, and further in view of Kosugi et al (US 6,050,818) hereinafter Kosugi.

5. As to claim 14, the combination of Michelet and Fukuda teaches all of the claimed limitation of claim 6, except for said information superimposing section converts the on-screen display information stored in at least one of said first memory and said second memory into indicatable bit map information, and superimposes the indicatable bit map information on the video signal.

However, Kosugi teaches said information superimposing section [37, Fig. 6A, col. 7, lines 57-62] converts the on-screen display information stored in at least one of said first memory [a memory unit, col. 10, lines 56-57] and said second memory [col. 14, lines 18-24] into indicatable bit map information [33r, Fig. 23], and superimposes the indicatable bit map information on the video signal “the warning is superimposed on an image being displayed” [see col. 13, lines 49-53, and col. 13, line 65 through col. 14, lines 24].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement a goggle of the bit map display application, e.g., “the warning is superimposed on an image being displayed” as taught by Kosugi for the intended use of the display of the combination of Michelet and Fukuda, because the warning display would prevent any harm to the viewer's vision, a warning text is displayed in a white color, a warning message reminding viewers not to use the optical visualizing apparatus (1) for a prolonged time, and a warning message any negative effects on the viewer (see Kosugi, col. 8, lines 52-65).

6. Claims 18, 20 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet in view of Fukuda, and further in view of Rallison et al (previously cited, US 5,991,085) hereinafter Rallison.

7. As to claims 18 and 20, the combination of Michelet and Fukuda teaches all of the claimed limitation of claim 6, except wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatuses, and wherein said

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display apparatus is adapted to be selectively connected to a plurality of types of host apparatus.

However, Rallison teaches interfacing among a plurality of types of host apparatus comprising host apparatuses (510, 503), a VCR, a videodisk player, a receiver, and a personal computer (see figure 25A) with a plurality of types of display apparatus comprising a HUD 102, a monitor, and a television 515a (see figure 22).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement interfacing among the plurality of types of display apparatuses with the plurality of types of host apparatuses as taught by Rallison for the intended use of the combination of Michelet and Fukuda, because a number of variations and modifications of the invention can be also be used (see Rallison, col. 30, lines 38-40), e.g., the head mounted display can be combined with or coupled to other devices (see Rallison, col. 30, lines 55-57).

8. As to claim 16, Rallison teaches a system according to claim 6, wherein said on-screen display information comprises ASCII text data [see col. 23, lines 10-20].

9. Claim 7, 9, 11 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable by Michelet.

10. As to claim 7, Michelet teaches a display system [Fig. 5] comprising:

a host apparatus [50] having an image output interface [51];

a display apparatus [60] which is operated by receiving at least a video signal [62] from said host apparatus [50];

a communication interface [63] for communicating data between said host apparatus [50] and said display apparatus [60, col. 2, lines 40-46];

wherein said display apparatus [60] comprises a memory for storing on-screen display information [OSD in element 54], and a display-side communication section [54] for transmitting the on-screen display information.

Michelet further teaches said host apparatus [50] comprises a host-side communication section [63] for receiving the on-screen display information transmitted by said display apparatus [a hardware monitoring circuit, not shown in Fig. 5, col. 9, lines 13-14 which receives a direct access to the OSD functions of a display or a screen and which, therefore, can provide enhance feedback information about hardware condition, see Fig. 5, col. 9, lines 20-24], and an information superimposing section for superimposing the received on-screen display information on the video signal [the superimposition of the OSD text and graphics on the video screen, col. 9, lines 10-18].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the embodiment of Fig. 1 and embodiment of Fig. 5 for any electronic circuitry providing other functions than hardware monitoring can take benefit from the teaching of the prevent invention [see col. 9, lines 23-26].

As to claim 9, Michelet teaches wherein said communication interface has a specification for communication between said host-side communication section and said display-side communication section which conforms with a DDC1/DD2B/DD2AB standard prescribed by Video Electronics Standards Association [see col. 6, lines 4-19].



As to claim 11, Michelet teaches wherein said display apparatus includes a mode for operating only said communication interface for communication with said host apparatus [see col. 2, lines 39-46].

11. As to claim 26, Michelet teaches a method for controlling a display system including a host apparatus [50, Fig.5] and a display apparatus [60, Fig. 5], said method comprising:

supplying at least a video signal [62] from the host apparatus [50] to the display apparatus [60] to operate the display apparatus;

transmitting on-screen display information [63] stored in the display apparatus [54] from the display apparatus to the host apparatus [50];

superimposing, at the host apparatus (the graphic card (50 within the computer), the on-screen display information [54] received by the host apparatus [50] onto the video signal (a video data) that is supplied from the host apparatus [50] to the display apparatus [60, see Fig. 5, col. 9, lines 10-27];

display an image of the on-screen display information on the display apparatus based on the video signal having the on-screen display information superimposed thereon [see Fig. 1, col. 5, lines 29 through col. 6, lines 54].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the embodiment of Fig. 1 and embodiment of Fig. 5 for any electronic circuitry providing other functions than hardware monitoring can take benefit from the teaching of the prevent invention [see col. 9, lines 23-26].

12. Claims 15, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet in view of Kosugi.

As to claim 15, Michelet teaches all of the claimed limitation of claim 7, except for said information superimposing section converts the on-screen display information stored in at least one of said first memory and said second memory into indicatable bit map information, and superimposes the indicatable bit map information on the video signal.

However, Kosugi teaches said information superimposing section [37, Fig. 6A, col. 7, lines 57-62] converts the on-screen display information stored in at least one of said first memory [a memory unit, col. 10, lines 56-57] and said second memory [col. 14, lines 18-24] into indicatable bit map information [33r, Fig. 23], and superimposes the indicatable bit map information on the video signal "the warning is superimposed on an image being displayed [see col. 13, lines 49-53, and col. 13, line 65 through col. 14, lines 24].

As to claims 27 and 28, Kosugi teaches wherein the display apparatus comprises a microdisplay apparatus that is wearable by a user, and wherein the display apparatus comprises a microdisplay apparatus that is wearable on at least one of a head and face of a user [see Fig. 1, col. 4, lines 30-36].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement a goggle including a bit map display application, e.g., "the warning is superimposed on an image being displayed" as taught by Kosugi for the intended use of the display of the display system of Michelet, because the warning

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display would prevent any harm to the viewer's vision, a warning text is displayed in a white color, a warning message reminding viewers not to use the optical visualizing apparatus (1) for a prolonged time, and a warning message any negative effects on the viewer (see Kosugi, col. 8, lines 52-65).

13. Claims 13, 17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet in view of Rallison.

As to claims 19 and 21, Michelet teaches all of the claimed limitation of claim 7, except wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatuses, and wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatus.

However, Rallison teaches interfacing among a plurality of types of host apparatus comprising host apparatuses (510, 503), a VCR, a videodisk player, a receiver, and a personal computer (see figure 25A) with a plurality of types of display apparatus comprising a HUD 102, a monitor, and a television 515a (see figure 22).

As to claim 13, Rallison teaches a system according to claim 7, wherein said display apparatus further comprises an indicator lamp for alarm display [Fig. 17A, col. 18, lines 18-24].

As to claim 17, Rallison teaches a system according to claim 7, wherein said on-screen display information comprises ASCII text data [see col. 23, lines 10-20].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement interfacing among the plurality of types of display apparatuses with the plurality of types of host apparatuses as taught by Rallison for the

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intended use of the display system of Michelet, because a number of variations and modifications of the invention can be also be used (see Rallison, col. 30, lines 38-40), e.g., the head mounted display can be combined with or coupled to other devices (see Rallison, col. 30, lines 55-57).

### ***Response to Arguments***

14. Applicant's arguments filed 8/25/2006 have been fully considered but they are not persuasive.

15. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

16. Applicant argues with respect to claims 6, 7, and 26: (1) Michelet does not disclose on-screen display information is sent from the display to the host, and the host sends only on-screen display commands to the display, (2) the host sends the on-screen display commands via a separate pathway from graphics information, instead of superimposing on-screen display information on a video signal, (3) the on-screen display decoder, which causes the display to display on-screen display information superimposed on the screen, is provided in the display, rather than in the host.

In response, the examiner respectfully disagrees. As stated *infra* with respect to claims 6, 7, and 26, the examiner finds that Michelet discloses:

- a. In one preferred embodiment of the invention, the service channel used by the graphics system consists of a bi-directional I<sup>2</sup>C communication supporting DDC/CI communication between the processor and the display, as well as a On Screen Display communication on a System Management Bus communication between the hardware monitoring circuit and the display, col. 2, lines 40-46.
- b. The service channel, such as a I<sup>2</sup>C communication link, permits the electronic circuit to have a direct access to the On Screen Display function, for displaying text and/or graphics independently of the operating system, while the service channel also provides a support for DDC/CI communication for the interaction between the processor and the display, col. 2, lines 58-64.
- c. Display 21 also comprises "On Screen Display" capabilities which are controlled by an internal microcontroller (not shown) and which causes the display of foreground texts and/or graphics superimposed on the background displayed image which is under control of the graphics signals on bus 20. Generally speaking, the OSD capabilities are activated when the user presses down the control buttons located on the front panel of the display in order to control and adjust, for instance, the brightness, the contrast, the horizontal or vertical positions of the image which is being displayed, or any other correction useful for perfecting the image, col. 5, lines 29-39.
- d. A DDC/CI and OSD control decoder 54 receives the I<sup>2</sup>C serial protocol link on a two-wire bus 63 which carries the DDC/CI commands issued by the processor and the OSD commands generated by an independent hardware

monitoring circuit (not shown in FIG. 5). DDC/CI and OSD decoder 54 controls power circuits 55 and 56, and the latter particularly controls the Column drive circuit 57 and Row drive circuit 58 for causing the superimposition of the OSD text and/or graphics on the screen.

e. The invention was particularly described with reference to a hardware monitoring circuit which receives a direct access to the OSD functions of a display or a screen and which, therefore, can provide enhanced feedback information about hardware conditions. However, it will be understood that any electronic circuitry providing other functions than hardware monitoring can take benefit from the teaching of the present invention, col. 9, lines 10-27.

Therefore, in summary, based on (a), (b), (c), (d), and (e), Michelet discloses (i) said On Screen Display information (e.g. the OSD capabilities are activated when the user presses down the control buttons located on the front panel of the display device (60)) is sent from (e.g. said bi-directional I<sup>2</sup>C communicating (63), or said interacting) between a graphic card (50) within the computer (the host) and said display device (60), (ii) the host (50) sends the on-screen display commands via said bi-directional I<sup>2</sup>C communication (63) (not via a separate pathway) for superimposing said on-screen display text and/or graphics on the screen (the screen includes the video data which has been displayed on the screen of the display device (60)), (iii) said on-screen display decoder (54), which causes the display device (60) to display on-screen display text and/or graphics on the screen, and which cause to interact between the processor (50) and the display device (60).

For these reasons, the rejections based on Michelet and cited prior art have been maintained.

### ***Conclusion***

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 9:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the Patent Application Information Retrieval system, see

<http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the

Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free).

Kevin M. Nguyen  
Patent Examiner  
Art Unit 262929

KMN  
September 29, 2006

A handwritten signature in black ink, appearing to read 'R. Hjerpe', with a stylized flourish at the end.

**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**